

What is claimed is:

1. A liquid jetting apparatus comprising:
a container-setting portion at which a liquid container
is set, the liquid container having a liquid chamber that contains
liquid,

a head member having a nozzle,
a liquid way that can communicate with the liquid chamber
of the liquid container set at the container-setting portion and
the nozzle,

a liquid discharging unit that can cause the liquid to be
discharged from the nozzle, and

a liquid discharging controller that can control the liquid
discharging unit based on information about sedimentation-state
of the liquid in the liquid chamber.

2. A liquid jetting apparatus according to claim 1, further
comprising

a clock component that knows a present time, and
a sedimentation-state acquiring unit that can acquire the
information about sedimentation-state of the liquid in the liquid
chamber,

wherein

the information about sedimentation-state of the liquid
in the liquid chamber is information about a point of time that
is a standard for judgement of the sedimentation-state,

the liquid discharging controller has:

a calculating part that can calculate a passed time until
the present time based on the information about a point of time
that is a standard for judgement of the sedimentation-state, and

a main controlling part that can control the liquid
discharging unit based on the passed time.

3. A liquid jetting apparatus according to claim 2, wherein:

the point of time that is a standard for judgement of the
sedimentation-state is a point of time when the liquid container
was manufactured.

4. A liquid jetting apparatus according to claim 3, wherein: the information about the point of time when the liquid container was manufactured is a date when the liquid container was manufactured.

5. A liquid jetting apparatus according to claim 2, wherein: the point of time that is a standard for judgement of the sedimentation-state is a point of time when the liquid container was set at the container-setting portion.

6. A liquid jetting apparatus according to claim 5, wherein: the information about the point of time when the liquid container was set at the container-setting portion is stored in a storage unit provided in the liquid container, and the sedimentation-state acquiring unit is adapted to read out the information stored in the storage unit.

7. A liquid jetting apparatus according to claim 2, wherein: the point of time that is a standard for judgement of the sedimentation-state is a point of time when the liquid was jetted previous time.

8. A liquid jetting apparatus according to claim 2, wherein: the point of time that is a standard for judgement of the sedimentation-state is a point of time when the liquid container was stirred previous time.

9. A liquid jetting apparatus according to claim 2, wherein: a liquid-consumption totaling unit that can total a liquid consumption from the nozzle, and a liquid-end determining unit that can determine a liquid end based on the information about a point of time that is a standard for judgement of the sedimentation-state and the liquid consumption.

10. A liquid jetting apparatus according to claim 9, wherein:
the liquid-end determining unit has:
a calculating part that can calculate a passed time until
the present time based on the information about a point of time
that is a standard for judgement of the sedimentation-state, and
a main determining part that can determine the liquid end
based on the passed time.

11. A liquid jetting apparatus according to claim 10, wherein:
the main determining part is adapted to determine the
liquid end correspondingly to a smaller liquid consumption when
the passed time is longer.

12. A liquid jetting apparatus according to claim 1, wherein:
the liquid discharging unit is a cleaning unit that can
cause the liquid to be absorbed from the nozzle.

13. A liquid jetting apparatus according to claim 1, wherein:
the liquid discharging unit is a flushing unit that can
cause the liquid to be jetted from the nozzle.

14. A liquid jetting apparatus according to claim 1, wherein:
the liquid container contains the liquid by containing a
foam material filled with the liquid.

15. A liquid jetting apparatus according to claim 1, wherein:
the liquid contained in the liquid container is ink
including pigment.

16. A liquid jetting apparatus according to claim 1, wherein:
the liquid container further has a second liquid chamber
that contains second liquid,
the head member further has a second nozzle,
the apparatus further comprises a second liquid way that
can communicate with the second liquid chamber of the liquid
container set at the container-setting portion and the second
nozzle,

the apparatus further comprises a second liquid discharging unit that can cause the second liquid to be discharged from the second nozzle, and

the liquid discharging controller can control the second liquid discharging unit based on information about sedimentation-state of the second liquid in the second liquid chamber.

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17. A liquid jetting apparatus comprising;
a container-setting portion at which a liquid container is set, the liquid container having a liquid chamber that contains liquid, the liquid including a sinkable constituent,

a head member having a nozzle,

a liquid way that can communicate with the liquid chamber of the liquid container set at the container-setting portion and the nozzle, and

a sedimentation-state acquiring unit that can acquire information about sedimentation-state of the liquid in the liquid chamber,

wherein

the information about sedimentation-state of the liquid in the liquid chamber is information about a point of time that is a standard for judgement of the sedimentation-state.

18. A liquid jetting apparatus according to claim 17, wherein:

the point of time that is a standard for judgement of the sedimentation-state is a point of time when the liquid container was manufactured.

19. A liquid jetting apparatus according to claim 18, further comprising

a clock component that knows a present time, and

a calculating part that can calculate a passed time until the present time based on the information about a point of time that is a standard for judgement of the sedimentation-state.

20. A liquid jetting apparatus according to claim 19, further comprising

a liquid discharging unit that can cause the liquid to be discharged from the nozzle, and

a main controlling part that can control the liquid discharging unit based on the passed time.

21. A liquid jetting apparatus according to claim 20, wherein:

the main controlling part is adapted to control the liquid discharging unit when the liquid container is replaced with a new liquid container in such a manner that a volume of the liquid to be initially discharged is larger when the passed time calculated based on the information about sedimentation-state of the liquid in the liquid chamber of the new liquid container set at the container-setting portion is longer.

22. A liquid jetting apparatus according to claim 18, further comprising

a liquid discharging unit that can cause the liquid to be discharged from the nozzle, and

a main controlling part that can estimate the sedimentation-state based on the information about a point of time that is a standard for judgement of the sedimentation-state and information about easiness of sedimentation of the sinkable constituent in the liquid, and that can control the liquid discharging unit based on the estimated sedimentation-state.

23. A liquid jetting apparatus according to claim 17, wherein:

the point of time that is a standard for judgement of the sedimentation-state is a point of time when the liquid container was set at the container-setting portion.

24. A liquid jetting apparatus according to claim 23, further comprising

a clock component that knows a present time, and

a calculating part that can calculate a passed time until the present time based on the information about a point of time

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that is a standard for judgement of the sedimentation-state.

25. A liquid jetting apparatus according to claim 24, further comprising

a liquid discharging unit that can cause the liquid to be discharged from the nozzle, and

a main controlling part that can control the liquid discharging unit based on the passed time.

26. A liquid jetting apparatus according to claim 25, wherein:

the main controlling part is adapted to control the liquid discharging unit when the liquid container is replaced with a new liquid container in such a manner that a volume of the liquid to be initially discharged is larger when the passed time calculated based on the information about sedimentation-state of the liquid in the liquid chamber of the new liquid container set at the container-setting portion is longer.

27. A liquid jetting apparatus according to claim 23, further comprising

a liquid discharging unit that can cause the liquid to be discharged from the nozzle, and

a main controlling part that can estimate the sedimentation-state based on the information about a point of time that is a standard for judgement of the sedimentation-state and information about easiness of sedimentation of the sinkable constituent in the liquid, and that can control the liquid discharging unit based on the estimated sedimentation-state.

28. A liquid jetting apparatus according to claim 17, wherein:

the point of time that is a standard for judgement of the sedimentation-state is a point of time when the liquid was jetted previous time.

29. A liquid jetting apparatus according to claim 28, further comprising

a clock component that knows a present time, and

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a calculating part that can calculate a passed time until the present time based on the information about a point of time that is a standard for judgement of the sedimentation-state.

30. A liquid jetting apparatus according to claim 29, further comprising

a liquid discharging unit that can cause the liquid to be discharged from the nozzle, and

a main controlling part that can control the liquid discharging unit based on the passed time.

31. A liquid jetting apparatus according to claim 30, wherein:

the main controlling part is adapted to control the liquid discharging unit when the liquid container is replaced with a new liquid container in such a manner that a volume of the liquid to be initially discharged is larger when the passed time calculated based on the information about sedimentation-state of the liquid in the liquid chamber of the new liquid container set at the container-setting portion is longer.

32. A liquid jetting apparatus according to claim 28, further comprising

a liquid discharging unit that can cause the liquid to be discharged from the nozzle, and

a main controlling part that can estimate the sedimentation-state based on the information about a point of time that is a standard for judgement of the sedimentation-state and information about easiness of sedimentation of the sinkable constituent in the liquid, and that can control the liquid discharging unit based on the estimated sedimentation-state.

33. A liquid jetting apparatus according to claim 17, wherein:

the point of time that is a standard for judgement of the sedimentation-state is a point of time when the liquid container was stirred previous time.

34. A liquid jetting apparatus according to claim 33, further comprising

a clock component that knows a present time, and
a calculating part that can calculate a passed time until
the present time based on the information about a point of time
that is a standard for judgement of the sedimentation-state.

35. A liquid jetting apparatus according to claim 34, further comprising

a liquid discharging unit that can cause the liquid to be
discharged from the nozzle, and

a main controlling part that can control the liquid
discharging unit based on the passed time.

36. A liquid jetting apparatus according to claim 35, wherein:

the main controlling part is adapted to control the liquid
discharging unit when the liquid container is replaced with a
new liquid container in such a manner that a volume of the liquid
to be initially discharged is larger when the passed time
calculated based on the information about sedimentation-state
of the liquid in the liquid chamber of the new liquid container
set at the container-setting portion is longer.

37. A liquid jetting apparatus according to claim 33, further comprising

a liquid discharging unit that can cause the liquid to be
discharged from the nozzle, and

a main controlling part that can estimate the
sedimentation-state based on the information about a point of
time that is a standard for judgement of the sedimentation-state
and information about easiness of sedimentation of the sinkable
constituent in the liquid, and that can control the liquid
discharging unit based on the estimated sedimentation-state.

38. A liquid jetting apparatus according to claim 17, wherein:
the liquid container further has a second liquid chamber
that contains second liquid, the second liquid including a

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~~sinkable constituent,~~

~~the head member further has a second nozzle,~~

~~the apparatus further comprises a second liquid way that can communicate with the second liquid chamber of the liquid container set at the container-setting portion and the second nozzle,~~

~~the sedimentation-state acquiring unit can also acquire information about sedimentation-state of the second liquid in the second liquid chamber, and~~

~~the information about the respective sedimentation-states of the liquid and the second liquid in the liquid chamber and the second liquid chamber is information about a point of time that is a standard for judgement of the sedimentation-states.~~

39. A liquid jetting apparatus according to claim 38, further comprising

a plurality of liquid discharging units each of which can cause each of the liquid and the second liquid to be discharged from each of the nozzle and the second nozzle, and

a main controlling part that can estimate the sedimentation-states based on the information about a point of time that is a standard for judgement of the sedimentation-states and information about easiness of sedimentation of the sinkable constituent in each of the liquid and the second liquid, and that can control the plurality of liquid discharging units respectively based on the estimated sedimentation-states.